A Bohr-Rutherford Diagram is one simple method for representing the structure of the atom on paper.

***How to Draw Bohr-Rutherford Diagrams***

1. Use the standard atomic notation to determine the number of protons and neutrons in the atom.
2. Draw a circle that represents the nucleus. Indicate the number of protons (*p+*) and neutrons (*n0*) in the nucleus.
3. Determine the number of electrons (*e-*) in the atom. Draw the first shell using a circle around the nucleus.
4. Fill the shell nearest the nucleus first (maximum two electrons). Once full, draw and fill the second shell with up to eight electrons, and up to eight electrons in the third shell.
5. When filling shells, follow the pattern shown in Figure 1.

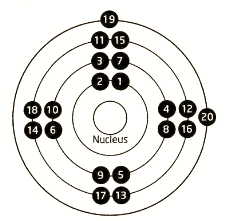
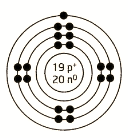


Figure 2: A completed Bohr-Rutherford diagram for potassium.

Figure 1: Fill energy levels with electrons according to the pattern shown in this diagram.

